

Unit 5

Day 4

Factoring Using Integers

Part 4

1)

$$x^6 - y^6$$

Give and Take Method

$$2) \quad x^4 + x^2 y^2 + y^4$$

$$(x^4 + 2x^2 y^2 + y^4) - x^2 y^2$$

$$(x^2 + y^2)^2 - x^2 y^2$$

$$(x^2 + y^2 + xy)(x^2 + y^2 - xy)$$

$$(x^2 + xy + y^2)(x^2 - xy + y^2)$$

$$3) m^4 - 22m^2 + 9$$

$$+ 16m$$

$$6m^2(m^4 - 6m^2 + 9) - 16m^2$$

$$(m^2 - 3)^2 - 16m^2$$

$$(m^2 - 3 + 4m)(m^2 - 3 - 4m)$$

$$(m^2 + 4m - 3)(m^2 - 4m - 3)$$

4)

$$a^8 + 4$$

$$\begin{matrix} +4a^4 \\ (a^8 + 4a^4 + 4) - 4a^4 \end{matrix}$$

$$(a^4 + 2)^2 - 4a^4$$

$$(a^4 + 2 - 2a^2)(a^4 + 2 + 2a^2)$$

$$(a^4 - 2a^2 + 2)(a^4 + 2a^2 + 2)$$

HW pg 43-44, 70-88 even, 89 & Extra Problems

Extra Problems:

1) $x^4 + 64$

2) $p^4 + 9p^2 + 81$

3) $z^4 - 11z^2 + 25$